



Sequence Listing

<110> Garrard, Lisa J.  
Henner, Dennis J.  
Bass, Steven  
Greene, Ronald  
Lowman, Henry B.  
Wells, James A.  
Matthews, David J.

<120> ENRICHMENT METHOD FOR VARIANT PROTEINS WITH ALTERED  
BINDING PROPERTIES

<130> P0645P4D2C3

<140> US 09/717,641

<141> 2000-11-21

<150> US 08/922,345

<151> 1997-09-03

<150> US 08/463,587

<151> 1995-06-05

<150> US 08/050,058

<151> 1993-04-30

<150> PCT/US91/09133

<151> 1991-12-03

<150> US 07/743,614

<151> 1991-08-09

<150> US 07/715,300

<151> 1991-06-14

<150> US 07/683,400

<151> 1991-04-10

<150> US 07/621,667

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D14

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gcctttgaca ggtaccagga gtttg 25

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<223> unknown base

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tgtccgcctc tgtgggcgat agggtcacca tcacctgccg tgccagtcag 150  
gatgtgaata ctgctgtagc ctggtatcaa cagaaaccag gaaaagctcc 200  
gaaactactg atttactcgg catccttcct ctactctgga gtcccttctc 250  
gcttctctgg atccagatct gggacggatt tcaactctgac catcagcagt 300  
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ggaaccctgg tcaccgtctc ctcggcctcc accaagggcc catcggtctt 1250  
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DI4

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tgggcaccca gacctacatc tgcaacgtga atcacaagcc cagcaacacc 1500  
aagggtggaca agaaagttga gcccaaactc tgtgacaaaa ctacacacagg 1550  
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Ser Ile Ala Thr Asn Ala Tyr Ala Asp Ile Gln Met Thr Gln Ser  
20 25 30  
Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr  
35 40 45  
Cys Arg Ala Ser Gln Asp Val Asn Thr Ala Val Ala Trp Tyr Gln  
50 55 60  
Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Ser Ala Ser  
65 70 75  
Phe Leu Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Ser



	80	85	90
Gly Thr Asp Phe Thr Leu Thr Ile Ser	95	Ser Leu Gln Pro Glu Asp	105
Phe Ala Thr Tyr Tyr Cys Gln Gln His	110	Tyr Thr Thr Pro Pro Thr	120
Phe Gly Gln Gly Thr Lys Val Glu Ile	125	Lys Arg Thr Val Ala Ala	135
Pro Ser Val Phe Ile Phe Pro Pro Ser	140	Asp Glu Gln Leu Lys Ser	150
Gly Thr Ala Ser Val Val Cys Leu Leu	155	Asn Asn Phe Tyr Pro Arg	165
Glu Ala Lys Val Gln Trp Lys Val Asp	170	Asn Ala Leu Gln Ser Gly	180
Asn Ser Gln Glu Ser Val Thr Glu Gln	185	Asp Ser Lys Asp Ser Thr	195
Tyr Ser Leu Ser Ser Thr Leu Thr Leu	200	Ser Lys Ala Asp Tyr Glu	210
Lys His Lys Val Tyr Ala Cys Glu Val	215	Thr His Gln Gly Leu Ser	225
Ser Pro Val Thr Lys Ser Phe Asn Arg	230	Gly Glu Cys	235

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<400> 26

Met Lys Lys Asn Ile Ala Phe Leu Leu Ala Ser Met Phe Val Phe	1	5	10	15
Ser Ile Ala Thr Asn Ala Tyr Ala Glu Val Gln Leu Val Glu Ser	20	25	30	
Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys	35	40	45	
Ala Ala Ser Gly Phe Asn Ile Lys Asp Thr Tyr Ile His Trp Val	50	55	60	
Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Tyr	65	70	75	
Pro Thr Asn Gly Tyr Thr Arg Tyr Ala Asp Ser Val Lys Gly Arg	80	85	90	

Phe	Thr	Ile	Ser	Ala	Asp	Thr	Ser	Lys	Asn	Thr	Ala	Tyr	Leu	Gln	95	100	105
Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ser	110	115	120
Arg	Trp	Gly	Gly	Asp	Gly	Phe	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	125	130	135
Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	140	145	150
Val	Phe	Pro	Leu	Ala	Pro	Ser	Ser	Lys	Ser	Thr	Ser	Gly	Gly	Thr	155	160	165
Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	170	175	180
Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	185	190	195
Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	200	205	210
Val	Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Ile	215	220	225
Cys	Asn	Val	Asn	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Lys	230	235	240
Val	Glu	Pro	Lys	Ser	Cys	Asp	Lys	Thr	His	Thr	Gly	Pro	Phe	Val	245	250	255
Cys	Glu	Tyr	Gln	Gly	Gln	Ser	Ser	Asp	Leu	Pro	Gln	Pro	Pro	Val	260	265	270
Asn	Ala	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Ser	Glu	275	280	285
Gly	Gly	Gly	Ser	Glu	Gly	Gly	Gly	Ser	Glu	Gly	Gly	Gly	Ser	Glu	290	295	300
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Ser	Gly	Ser	Gly	Asp	Phe	Asp	Tyr	305	310	315
Glu	Lys	Met	Ala	Asn	Ala	Asn	Lys	Gly	Ala	Met	Thr	Glu	Asn	Ala	320	325	330
Asp	Glu	Asn	Ala	Leu	Gln	Ser	Asp	Ala	Lys	Gly	Lys	Leu	Asp	Ser	335	340	345
Val	Ala	Thr	Asp	Tyr	Gly	Ala	Ala	Ile	Asp	Gly	Phe	Ile	Gly	Asp	350	355	360
Val	Ser	Gly	Leu	Ala	Asn	Gly	Asn	Gly	Ala	Thr	Gly	Asp	Phe	Ala	365	370	375
Gly	Ser	Asn	Ser	Gln	Met	Ala	Gln	Val	Gly	Asp	Gly	Asp	Asn	Ser	380	385	390

D14

Pro	Leu	Met	Asn	Asn	Phe	Arg	Gln	Tyr	Leu	Pro	Ser	Leu	Pro	Gln
				395					400					405
Ser	Val	Glu	Cys	Arg	Pro	Phe	Val	Phe	Ser	Ala	Gly	Lys	Pro	Tyr
				410					415					420
Glu	Phe	Ser	Ile	Asp	Cys	Asp	Lys	Ile	Asn	Leu	Phe	Arg	Gly	Val
				425					430					435
Phe	Ala	Phe	Leu	Leu	Tyr	Val	Ala	Thr	Phe	Met	Tyr	Val	Phe	Ser
				440					445					450
Thr	Phe	Ala	Asn	Ile	Leu	Arg	Asn	Lys	Glu	Ser				
				455					460					

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<210> 28  
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 <212> DNA  
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<210> 29  
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<210> 30  
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<400> 32

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gctgctcaca tgacccggca a 21

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<210> 35

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D14

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<210> 36  
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<400> 36  
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<222> 7-9  
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<400> 38  
gctgctcact atacgctca g 21

<210> 39  
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<210> 43  
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<400> 43  
gctgctcact tccggcaa 18

<210> 44  
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<210> 45  
<211> 4  
<212> PRT  
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<220>  
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<400> 45  
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<210> 46  
<211> 4  
<212> PRT  
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<400> 46  
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<210> 47  
<211> 4  
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Thr Trp Gly Ser  
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D14

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<210> 49  
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<210> 50  
<211> 4  
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<210> 51  
<211> 4  
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<220>  
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<400> 51  
Gln Gln Ser Asn  
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<210> 52  
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<400> 52  
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<210> 53  
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<400> 53  
Thr Pro Val Thr  
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<210> 54  
<211> 4  
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<210> 55  
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<212> PRT  
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<400> 55  
Leu Cys Gly Leu  
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<210> 56  
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Thr Gly Arg Leu  
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D14 <210> 58  
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D14

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<400> 63  
His Arg Pro Ser  
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Asn Gly Ser Lys  
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<210> 67  
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